



# TORSUS 50

## Intrusion detection for rigid fences

**TORSUS 50 is a perimeter intrusion detection system for rigid metal fences.** It is suitable for the protection of compounds of any size and complexity, in residential, industrial and military sectors. Composed of special torsion sensors and sophisticated processing boards, TORSUS 50 detects breaking through and climbing attempts on rigid metal fences and palisades.



### CLIMBING DETECTION

The system discriminates and signals not only breaking through attempts against the fence, but also climbing events, including those climbing actions performed without causing vibrations or noises.



### IMMUNE TO DISTURBANCES

The normal functioning of the system is not affected by adverse climatic events such as rain, snow and sudden temperature jumps or by man-made factors such as roads, motorways and railways.



### 24H PROTECTION

Working on the boundary of an estate, the systems offer a round-the-clock protection letting people move freely inside the perimeter.



### PREWIRED SENSOR-STRINGS

All the detectors are wired, sealed and tested at the factory to avoid on site potential wiring mistakes and to guarantee the tightness of all the electrical connections.



### FLEXIBLE

The sensor-strings easily adapt to ground contour and to perimeter route, making it possible to follow slopes and differences in level, to circumvent obstacles and to bypass interruptions of the fence.



### COMPATIBLE WITH THE VEGETATION

The detectors can be also installed on fences completely covered with evergreen climbing plants or touched by tall grass and thin bushes.

# SENSORS



TORSUS 50 employs **passive piezodynamic sensors** which perceive the flexions and the torsions of the bearing posts of a rigid fence during an intrusion attempt. The detectors are not subject to electric failure since they do not contain active electronic components; in addition, they are not disturbed by electromagnetic fields or radiofrequency emissions.

The technology employed in the sensor makes the system highly tolerant to:

- ✓ **atmospheric agents** (wind, rain, snow)
- ✓ **strong temperature jumps**
- ✓ fences completely covered with **evergreen climbing vegetation**
- ✓ man-made factors nearby the fence such as **roads, railways and machines in operation**

**The detectors are supplied in prewired strings of 50-metre standard length.** A string can be composed of 20 or 25 sensors depending on the post-to-post spacing of 2.5 metres and 2 metres, respectively. DEA can also provide **sensor-strings with customized length.**

In case a sensor or the relevant connection cable are intentionally or accidentally damaged, the regular functioning of the system can be quickly recovered by executing a simple electric junction.

The sensors can be provided either with **ABS body** or with **polyamide housing**, the latter being specially designed for the protection of petrochemical compounds. The sensors with ABS housing are also available with the connection cable protected by flexible metal tube.



# ELECTRONIC BOARDS

The signals coming from the sensor-strings are amplified and processed by the **BR-TR50-Z2 (dual-zone) and BR-TR50-Z4 (multi-zone) microprocessor electronic boards**. The former manages two sensor-strings (alarm zones) while the latter can manage up to 4 sensor-strings at the same time and in an independent way.

The processing boards allow you to **adjust the sensitivity and to vary the processing parameters of the signals coming from the sensor-strings**, so as to maximize the performance of the system in each single installation or according to specific needs.

service software



BR-TR50-Z2



BR-TR50-Z4

The calibration and the programming of the processing boards can be performed via a PC by using a specific service software which displays a **real time graph of the signals** coming from each sensor-string and the input and output status. By this software you can also upload a configuration previously saved and view the **event logs** where all the signals from the sensor-strings are recorded in chronological order. DEA Security's engineers can analyse these events to determine the cause raising the alarm.

The processing boards raise alarm, tamper and failure signals through dry relay contacts (C/NC), but can be also connected over **DEA NET centralization network or over Ethernet with IP protocol**.

## IP NATIVE

The new processing boards, dual-zone boards or multi-zone boards, are now equipped with a USB port, with an Ethernet Interface for the connection over TCP/IP network and with a completely upgraded service software.

The IP native support enables the direct integration, or via plug-in, with a wide number of third-party software and devices, such as PSIM and VMS.

# COMPONENTS OF THE SYSTEM

## **Standard sensor-string (LN-TR50)**

Sensor-strings of 50-metre length prewired with 20 or 25 sensors with ABS body or polyamide housing (on request) in black colour.

## **Customized sensor-string (SN-TR50)**

Sensor-strings provided in a customized length (less than 50 metres) and composed of a variable number of sensors.

## **Connection cable (CV-ST50)**

Shielded cable to connect the sensor-strings to the relevant processing board.

## **Processing boards (BR-TR50)**

Microprocessor electronic boards which amplify and analyse the signals coming from the sensor-strings.

## **Wiring accessories**

They comprise a 100-piece pack of tie wraps (FPA-150) to fix the cable to the fence, a case (JTBX-ST50) for the junction and termination of the sensor-strings and a 100-gram pack of PUR cast resin (RP-100) to seal the junction and the termination cases.



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